

**REMARKS**

In a non-final Office Action mailed on June 11, 2007, the United States Patent and Trademark Office rejected all pending claims of the present application. Applicants are amending the Claims and respectfully request that the claims be allowed for the following reasons.

**Rejection of Claims 1-10 under 35 U.S.C. § 112, second paragraph**

In the Office Action, Claim 1 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Office Action states that “the term ‘easily disengageable’ in claim 1 is a relative term which renders the claim indefinite.” Applicants are deleting the word “easily” from Claim 1, so this rejection with respect to Claim 1 is moot.

Claims 2-10 are also rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention based on depending from rejected claim 1. Because Applicants are amending Claim 1 to resolve the 35 U.S.C. § 112, second paragraph, issue with respect to Claim 1, the rejection of claims 2-10 under 35 U.S.C. § 112, second paragraph is moot. For the foregoing reasons, Applicants respectfully request that the rejection of Claims 1-10 under 35 U.S.C. § 112, second paragraph, be withdrawn.

**Rejection of Claims 1-29 under 35 U.S.C. § 102(b)**

In the Office Action, Claims 1-29 are rejected under 35 U.S.C. § 102(b) as being anticipated by Edlund *et al.* (U.S. Pat. App. Pub. No. 2001/0045061) (hereinafter, “Edlund”). Applicants are amending independent Claims 1, 11, and 25 and, for the following reasons, believe the claims are in condition for allowance.

Independent Claim 1 is being amended to recite, in part, “a removable carrier comprising at least one fuel reformer module, the carrier connecting to the fuel reformer assembly to enclose the at least one module within the cavity, the carrier carrying at least a portion of the at least one fuel reformer module in an interior portion, an exterior portion of the carrier and walls of the

cavity forming a fluid flow path to the interior portion of the carrier wherein reformat enters the fluid flow path and is heated by heat exchange with the carrier prior to flowing into the at least one fuel reformer module.” Independent Claims 11 and 25 are being amended to recite similar claim limitations. These amendments to independent Claims 1, 11, and 25 do not introduce new matter because they are fully supported by the specification, as filed, at least at page 7 and by FIG. 2 of the drawings. FIG. 2 shows cavity 12 with carrier 20 inserted. The carrier 20 has an interior portion in which reforming modules 22, 24, and 26 are located and through which reformat flows. FIG. 2 also shows fluid flow path 38 formed between the wall of carrier 20 and cavity 12. Expanded views D and C in FIG. 2 show reformat stream 60 first flowing through fluid flow path 60 from a first end of cavity 12 to the opposite end of cavity 12. Then, the reformat stream 60 enters the interior portion of carrier 20 to interact with reforming modules 22, 24, and 26. Fluid flow path 38 formed between carrier 20 and walls of cavity 12 allows the reformat stream 60 to gain heat from exothermic reactions in reformer modules 22, 24, 26 transferred through carrier 20. This heat from the exothermic reactions would otherwise be wasted.

Edlund, by contrast, does not disclose a removable carrier where the wall of the carrier and the cavity into which the carrier fits forms a fluid flow path leading to the reformer modules within the carrier. FIG. 9 of Edlund shows a reformer module 31 with a series of ports 122 and removable modules 32, 62, 38, 48. Edlund shows that each module 32, 62, 38, 48 is fluidly coupled to adjacent modules using fittings 120. Edlund does not teach using the geometry of the reformer assembly cavity and carrier to form a fluid flow path for passing the reformat over the exterior portions of the carrier first to pre-heat the reformat using heat from an exothermic reaction inside the carrier before the reformat flows through the carrier.


Edlund does not anticipate independent Claims 1, 11, and 25 of the present application because Edlund does not disclose walls of a cavity and a carrier within the cavity forming a fluid flow path to heat reformat before introducing the reformat into the reforming module within the carrier. Claims 2-10, 12-24, and 26-29, which depend on Claims 1, 11, and 25, respectively, are also not anticipated by Edlund for at least the same reasons.

**CONCLUSION**

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

By   
James M. Smith  
Registration No. 28,043  
Telephone: (978) 341-0036  
Facsimile: (978) 341-0136

Concord, MA 01742-9133

Date: 11/13/7